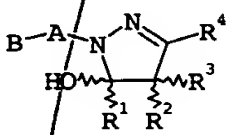
We claim;

1. The use of 5-hydroxypyrazolines of the formula I



I

where:

B is aryl with or without substitution or hetaryl with or without substitution;

A is C=O, C=S oder SO_2;

R^1 is C_2-C_{10}-alkyl, C_1-C_{10}-haloalkyl, C_3-C_{10}-alkenyl, C_3-C_{10}-haloalkenyl, C_3-C_{10}-alkynyl or C_3-C_{10}-haloalkynyl,

C_3-C_{10}-cycloalkyl with or without substitution, C_3-C_{10}-cycloalkenyl with or without substitution, C_3-C_{10}-cycloalkynyl with or without substitution or,

aryl with or without substitution, heterocyclyl with or without substitution or hetaryl with or without substitution;

R^2 is hydrogen;

R^3 is hydrogen, nitro, cyano, $N(R')_2$, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_2-C_4-alkenyl, C_2-C_4-haloalkenyl, C_2-C_4-alkynyl or C_2-C_4-haloalkynyl, where

R' independently of one another are hydrogen or C_1-C_4-alkyl;

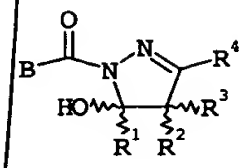
or R^2 and R^3 together are a group =O, =S or =N-O-R^5, where

R^5 is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-alkenyl, C_3-C_6-haloalkenyl, C_3-C_6-alkynyl or C_3-C_6-haloalkynyl;

R^4 is hydrogen, halogen, nitro, cyano, $N(R')_2$, C_1-C_4-alkyl, C_1-C_4-haloalkyl, COOR', hetaryl or heterocyclyl;

for controlling harmful fungi.

2. A 5-hydroxypyrazoline of the formula IA as set forth in claim 1,



IA

in which in case a:

R^3 is nitro, cyano, $N(R')_2$, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_2-C_4-alkenyl, C_2-C_4-haloalkenyl, C_2-C_4-alkynyl or C_2-C_4-haloalkynyl;

or R^2 and R^3 together are a group

=O, =S or =N-O-R^5,

R^4 is hydrogen, halogen, nitro, cyano, $N(R')_2$, C_1-C_4-alkyl, C_1-C_4-haloalkyl or heterocyclyl;

and B, R^1 and R^2 are each as defined in claim 1, or

in case b:

B is naphthyl with or without substitution, heterocyclyl with or without substitution, hetaryl with or without substitution or substituted phenyl, and

R^3 is hydrogen,

R^4 is hydrogen, halogen, nitro, cyano, $N(R')_2$, C_1-C_4-alkyl, C_1-C_4-haloalkyl or heterocyclyl;

where R^4 is not methyl if R^1 is methyl, tert-butyl or phenyl and the group B is phenyl which is substituted by 3-bromo, 4-halo, 4-methyl, 4-methoxy, 4-nitro, 4-dimethylamino or 4-fluoro-3-methyl, and

where R^4 is not ethyl if both the group B and R^1 are 4-fluorophenyl, or

in case c:

B is unsubstituted phenyl,

R^1 is aryl with or without substitution, heterocyclyl with or without substitution or hetaryl with or without substitution,

C_3-C_{10}-cycloalkyl with or without substitution, C_3-C_{10}-cycloalkenyl with or without substitution, C_3-C_{10}-cycloalkynyl with or without substitution,

n-propyl with or without substitution, C_4-C_{10}-alkyl with or without substitution, $CHCl_2$, CH_2Cl, CCl_3, CHF_2, CF_2H, CF_2Cl, $CFCl_2$, C_2-C_{10}-haloalkyl, C_3-C_{10}-alkenyl with or without substitution, C_3-C_{10}-haloalkenyl, C_3-C_{10}-alkynyl with or without substitution or C_3-C_{10}-haloalkynyl;

R^2 is hydrogen;

R^3 is hydrogen, nitro, cyano, amino, methylamino, dimethylamino, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_2-C_4-alkenyl, C_2-C_4-haloalkenyl, C_2-C_4-alkynyl or C_2-C_4-haloalkynyl,

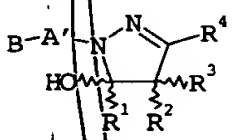
or R^2 and R^3 together are a group

=O, =S or =N-O-R^5, and

R^4 is hydrogen, halogen, nitro, cyano, $N(R')_2$, C_1-C_4-alkyl, C_1-C_4-haloalkyl or heterocyclyl;

where R^1 is not tert-butyl if R^4 is CF_2H and R^4 is not methyl if R^1 is phenyl.

3. A 5-hydroxypyrazoline of the formula IB as set forth in claim 1,

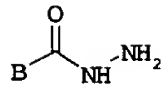


IB

in which

A' is C=S or SO_2.

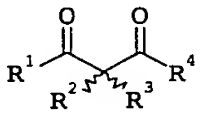
4. A process for preparing compounds of the formula IA as claimed in claim 2, which comprises reacting a hydrazine of the formula II,



II

in which B is as defined in claim 2,

with a diketone of the formula III,

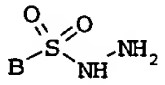


III

in which the substituents are each as defined in claim 2.

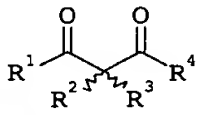
5. A process for preparing compounds of the formula IB as claimed in claim 3, in which A' is C=S, which comprises reacting compounds of the formula I as set forth in claim 1, in which A is C=O, with Lawesson's reagent.

6. A process for preparing compounds of the formula IB as claimed in claim 3, in which A' is SO_2, which comprises reacting sulfohydrazines of the formula IV,



IV

in which B is as defined in claim 1 with diketones of the formula III,



III

in which the substituents are each as defined in claim 1.

7. The use of compounds of the formula I as set forth in claim 1, in which A is C=O, as intermediates for preparing compounds of the formula IB as claimed in claim 3 in which A' is C=S.

8. A composition which is suitable for controlliong harmful fungi, comprising a solid or liquid carrier and a compound of the formula I as set forth in claim 1.

9. The use of the compounds I as set forth in claim 1 for preparing a composition which is suitable for controlling harmful fungi.

10. A method for controlling harmful fungi, which comprises treating the fungi or the materials, plants, the soil or the seeds to be protected against fungal attack with an effective amount of a compound of the formula I as set forth in claim 1.